"Express Mail" mailing label number EV 316 041 690 US

Date of Deposit: October 20, 2006

OIPE
IAP51
OCT 2 0 2006
PATENT & TRADEMARK OFFICE

PATENT
CASE NO. 8285/645

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

R. Bossemeyer, Jr. et al.

Serial No. 10/679,197

Filing Date: October 2, 2003

For WIDE AREA COMMUNICATION NETWORKING

Examiner: S. Tsegaye

Group Art Unit: 2616

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sirs:

This Appeal Brief is filed based on the final rejection of all pending claims mailed on January 12, 2006, and further to the Notice of Panel Decision from Pre-Appeal Brief Review mailed June 20, 2006.

10/24/2006 AWONDAF1 00000071 231925 10679197
01 FC:1402 500.00 DA

I. Real Party in Interest

The real party in interest for the above-referenced application is SBC Properties, L.P., whose address is 645 East Plumb Lane, Reno, Nevada 89502.

II. Related Appeals and Interferences

The undersigned is unaware of any other appeals or interferences that will directly affect, be directly affected by or have any bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-11 are canceled.

Claims 12-42 are pending and stand finally rejected.

All of finally rejected claims 12-42 are appealed.

IV. Status of Amendments

No amendments are pending.

V. Summary of Claimed Subject Matter

Appellant's invention relates to telecommunications networks. More particularly, the invention relates to wide area communication networks configured for carrying voice and data information (p. 5, lines 3-10).

In each of the claimed embodiments, the wide area communication network described is adapted to carry a derived digital voice channel. A derived digital voice channel is a channel for a voice call carved out of, or "derived" from a packet data line (See, for example, p. 9, lines 9-16 of specification). The systems disclosed can help small businesses to build a communication network carrying computer data, voice signals and/or facsimile data (p. 31, lines 32-34)

Independent claim 12 recites a wide area communication network and defines a first subscriber location (e.g., FIG. 20, 622; p. 30, lines 22-24). The first subscriber location may be connected to a first DSLAM via a first NID (e.g., FIG. 20, 624, p. 30, lines 24-27). The first DSLAM may communicate with a second DSLAM via PSTN or

ATM networks (e.g., FIG. 20, 630, 632, 634; p. 30, lines 27-30). A second subscriber location communicates with the second DSLAM via a second NID (p. 30, lines 30-34). At least one derived digital telephone voice channel is carried over the first and second digital subscriber lines (e.g., FIG. 20, 626, 636) and by a public switched telephone network connecting the first digital subscriber line access multiplexer to the second digital subscriber line access multiplexer (e.g., FIG. 20, 634, 628, 632), wherein a subscriber unit at the first subscriber location is configured to select one of a plurality of derived digital voice channels for a voice communication to the second subscriber location (e.g., FIG. 6, 100; p.17, lines 8-21).

Independent claim 28 recites a wide area communication network with a first local area network and a first telephone system connected to a first network interface device at a first subscriber location (e.g., FIG. 23, 752, 756, 758, 760; p. 32, lines 18-25). A first DSL line is connected to the first network interface device (NID) and to a first DSLAM (e.g., FIG. 23, 772, 774; p. 32, lines 28-30) where the first DSLAM separates DSL channel from a first telephony channel (e.g., FIG. 23, 778, 782). Claim 28 also recites a public switched telephone network (PSTN) connected to the first telephony channel, as well as an IWU connected to both the PSTN and the first DSLAM (e.g., FIG. 23, 780, 784, p. 32, lines 30-32). The first DSL channel connects with an ATM network, which is connected via second DSL channel to a second DSLAM (e.g., FIG. 23, 776, 786, 788; P. 32, lines 32-33), while the second DSLAM is connected to the ATM network by a second DSL channel and connected to the public switched telephone network by a second telephony channel (e.g., FIG. 23, 790, 792; p. 32, lines 32-35). A second DSL line connects the second DSLAM to a second network interface device connected at a second subscriber location, where the subscriber location has a second local area network and a second telephone system (e.g., FIG. 23, 794, 796; p. 33, lines 1-5).

Finally, claim 28 also recites a first hybrid circuit communicating a voice telephone call from a first telephone in communication with the first local area network to a second telephone in the second telephone system (e.g., FIG. 23, 768, 806; p. 33, lines 15-17), where a first portion of the first hybrid circuit is a virtual circuit and a second portion is a switched circuit (e.g., p. 33, lines 17-22). An advantage of the wide area network disclosed is the ability for a small business to readily reconfigure such a network and to take advantage of communications via combinations of available packet switched and circuit switched network resources (e.g., p. 34, lines 3-12).

Independent claim 42 also recites a wide area communication network having first and second subscriber locations, where a first digital subscriber line is in communication with the first subscriber location via a first network interface device and a second digital subscriber line is in communication with the second subscriber location via a second network interface device (See, e.g., FIG. 23 and p. 32, line 18-p. 33, line 6). Each of the first and second digital subscriber lines connects with a respective one of first and second digital subscriber line access multiplexers and the first and second subscriber locations are in communication via at least one derived digital telephone voice channel (See, e.g., p. 9, lines 9-16) carried over an Internet connection (e.g., FIG. 23, 814 and FIG. 21, 686; p. 31, lines 12-31 and p. 33, lines 22-30) and by the first and second digital subscriber lines.

VI. Grounds of Rejection to be Reviewed on Appeal

1. Whether claims 12-19 and 21-27 are unpatentable under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096), Whittaker et al. (US 6,130,893) and Weinman, Jr. (US 6,453,022).

2. Whether claims 28-41 are unpatentable under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096), Whittaker et al. (US 6,130,893) and Klok et al. (US 5,930,250).

3. Whether claim 20 is unpatentable under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096), Whittaker et al. (US 6,130,893), Weinman, Jr. (US 6,453,022) and Klok et al. (US 5,930,250).

4. Whether claim 42 is unpatentable under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096) and Whittaker et al. (US 6,130,893).

VII. Argument

Appellant submits that the pending rejections fail 1) to cite references teaching or suggesting all of the claimed features; or 2) to meet the requirement of adequately showing a teaching or suggestion to combine the cited references.

A. Ground 1

Appellant submits that the rejection of claims 12-19 and 21-27 under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096), Whittaker et al. (US 6,130,893) and Weinman, Jr. (US 6,453,022) should be withdrawn.

Claim 12

Claim 12 relates to a wide area communications network that is configured to transport a voice call between first and second subscriber locations over a packet data connection. Claim 12 includes, *inter alia,* a derived digital voice channel for a voice call carved out of, or "derived" from the packet data line (See, for example, p. 9, lines 9-16 of specification. The cited references are not properly combinable and, even if combined, they lack the subscriber unit recited in claim 12. As explained in greater detail below, the Examiner has attempted to combine a high data rate network configuration reference, a lower data rate configuration reference and a standard multi-line telephone reference to create the invention of claim 12.

Liu et al. lacks at least the features in claim 12 identified above. Liu et al. discloses a system for end-to-end data and analog voice connections. The disclosed system in Liu et al. focuses on optimal data routing of high bit rate data based on certain parameters, such as bandwidth requirements and cost, and is provisioned to allow the user to request specific data paths (Col. 3, lines 43-50; Col. 4, lines 21-28). Liu et al. also lacks any teaching or suggestion of a derived digital voice channel or subscriber units that can select a voice channel from among derived digital voice channels.

The Examiner recognized that Liu was insufficient to support an obviousness rejection and has now tried combing three unrelated patents to support the rejection. Specifically, the Examiner suggested that Whittaker et al. discloses derived digital voice channels and that Weinman discloses a multi-line phone that can be combined with Liu to make up for the deficiencies in Liu. Appellant submits that the claimed feature of a subscriber unit configured to select one of a plurality of derived digital voice channels for a voice communication to the second subscriber location is entirely missing from the combination proposed by the Examiner. Weinman teaches a general multi-line phone with mixing and audio control. Weinman fails to teach or suggest a derived digital telephone voice channel or accessing a derived digital telephone voice channel. Instead, Weinman discloses a multi-line phone physically coupled to separate telephone lines (See Weinman, Col. 3 lines 17-45).

Whittaker et al. also fails to teach or disclose a subscriber unit configured to be able to choose among one of a plurality of derived digital voice channels. Whittaker et al. generally discloses adding a terminal adapter 20 to a customer premise, where the terminal adapter is a static device having a specific address that will allow an analog phone to make or receive calls on a POTS line or the specific digital line (See Whittaker, FIG. 3; Col. 3, lines 37 – 57; Col. 6, lines 9-21). Whittaker lacks any teaching or suggestion of a subscriber unit configured to select from among different derived digital telephone voice channels.

In addition to lacking the claimed subscriber unit, there is no motivation to combine these three references. As set out in MPEP 2143.01, the fact that a concept is technologically simple, that references could be combined, or that the claimed invention is within the capabilities of one of ordinary skill does not satisfy the requirement of motivation to combine. As discussed previously, Liu et al. discloses treating voice calls and data calls separately, where routing of data calls can be actively managed based on bandwidth requirements and cost. Whittaker et al. discloses a home-based LAN where a packetized voice channel can be multiplexed onto a two wire telephone line. Appellant submits that the disclosure of Liu et al., with its clear emphasis on providing "high bit rate transmission" for an "end-to-end, and high-speed interconnection" (See Liu, Col. 1. lines 30-45; Col. 3, lines 43-50; Col. 6, line 40 –59; Col. 10, lines 35-37) does not provide any motivation to combine with Whittaker et al. and its disclosure of a home LAN with low data rate voice channel multiplexed onto a two-wire telephone line.

One of ordinary skill would not be motivated to apply the teachings of Liu et al. (additional data routing selections for high data rate connections) to teachings in

Whittaker et al. (inexpensive additional voice line) when *Liu separates voice from data and is focused on the problems of high bit rate data routes.* A lower bit rate digital voice call would then seem to involve selecting among additional routing alternatives every time a person makes a call – requiring changes to both the hardware of Whittaker and of Liu (neither of which discloses the claimed subscriber unit or suggests its desirability). Similarly, no motivation to combine Weinman and either of Liu et al. or Whittaker et al references is found in the references. (See Office Action response filed October 19, 2005) Because there is no motivation to combine the disparate teachings of the three cited references, and because at least one feature of claim 12 would be missing if such a combination were made, Appellant submits that claim 12 is allowable over the art of record. Claims 13-19 and 21-27 are dependent on claim 12 and are allowable for at least the same reasons as provided for claim 12.

B. Ground 2

Appellant submits that the rejection of claims 28-41under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096), Whittaker et al. (US 6,130,893) and Klok et al. (US 5,930,250) should be withdrawn.

Claim 28

The Examiner has rejected claim 28 over the combination of Liu et al., Whittaker et al. and Klok et al. These references do not disclose, among other things, the claimed first hybrid circuit for voice telephone calls in combination with the other features of claim 28. These references are also not properly combinable. Liu et al. and Whittaker et al. relate to completely different systems (high bit rate vs. low bit rate) and disclose completely different goals and motivations. Klok has been added merely to show an unrelated network with an IWU.

The discussion in Liu et al. focuses on standard circuit switched telephony and user selectable routing for data. As discussed above with respect to claim 12, the teachings in Liu relate to optimization of high bandwidth/bit rate data routing control to help manage bandwidth and cost. The specification in Liu et al. repeatedly and consistently identifies voice signal information and the circuit switched path that voice signal information takes separately from the data channel information and the packet switched path or other route that data channel information can take (See Col. 4. lines 8-11; Col. 4, lines 45-49; Col. 8, lines 39-50; Col. 10, lines 48-54; Col 11, lines 42-45; Col 12, lines 1-7). As previously noted by the Examiner, Liu et al. lacks any teaching of a hybrid telephone voice channel as claimed.

The Examiner previously suggested that Whittaker teaches the missing hybrid telephone voice channel (Office Action dated April 19, 2005, p.8). The Examiner's basis for a motivation to combine is the that the power failure back-up of a POTS line and the convenience of adding additional phone lines without more wires would cause someone to combine Whittaker and Liu. However, Appellant submits that Liu is unconcerned with telephone voice communications and already has power failure issues covered by virtue of the POTS-only voice communications disclosed. As Liu et al. is concerned with high bit rate data transfer management, one of ordinary skill would not be motivated to combine the low bit rate voice telephony of Whittaker with the high bit rate data transfer mechanisms in Liu et al.

Finally, although Klok et al. discloses a generic IWU for permitting packetized data over a PSTN, it fails to make up for the deficiencies of Liu et al. and Whittaker et al. regarding digital telephone voice channels or a hybrid circuit carrying a voice channel as claimed.

Claims 29-41 depend from claim 28, are submitted to be allowable for at least the same reasons as provided for claim 28.

C. Ground 3

Appellant submits that the rejection of claim 20 under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096), Whittaker et al. (US 6,130,893), Weinman, Jr. (US 6,453,022) and Klok et al. (US 5,930,250) should be withdrawn.

Appellant submits that dependent claim 20, which depends from independent claim 12, is allowable for at least the same reasons as provided above for claim 12. Klok et al. fails to make up for the deficiencies of Liu et al., Whittaker et al. or Weinman as it does not teach or suggest the digital telephone voice channel, the wide area network components or the subscriber unit configured to select individual derived digital voice channels as claimed. Also, there is no suggestion in Klok et al. to combine its generic teaching of a data line interface (IWU) to a PSTN with these other references.

D. Ground 4

Appellant submits that the rejection of claim 42 under 35 U.S.C. §103(a) in view of the combination of Liu et al. (US 6,349,096) and Whittaker et al. (US 6,130,893) should be withdrawn.

Claim 42

The Examiner rejected claim 42 as obvious over the combination of Liu et al. and Whittaker et al. Appellant agree with the Examiner that Liu et al. is lacking at least a teaching of an Internet connection carrying voice information. Whittaker et al. fails to make up for the deficiencies in Liu et al. Specifically, Appellant submits that Liu et al., with its express segregation of voice connectivity from high bit rate data communications, and Whittaker et al., with its focus on low cost digital voice lines that are inherently lower bit rate connections, are not properly combinable.

The Examiner's suggestion that the combination is obvious based on low transmission cost and efficient control of end-to-end transmission paths (Office Action, p. 3) is inapplicable here. Neither Liu et al. nor Whitaker et al. is concerned with the costs of lower bandwidth digital voice calls. The only teaching regarding the advantages of selecting among routing alternatives is in Liu et al. for high bit rate data communications where costs and routing are an issue. Appellant submits that the route selection in Liu et al. teaches away from a combination with Whittaker et al. because, aside from the clear separation of voice communication from data communication in Liu, one of ordinary skill would not want to add complexity and delay to a typical lower bandwidth digital telephone call by inserting additional routing decisions. To the contrary, it is much more likely that one of ordinary skill would not burden a telephone caller with extra call placement decisions based on Whittaker et al.'s teaching to merely add an extra line by connecting an analog telephone to a converter that can transparently access either a POTS line or a predetermined digital voice channel. For at least these reasons, Appellant submits that claim 42 is allowable over the cited art.

The Examiner's suggestion that the combination is obvious based on low transmission cost and efficient control of end-to-end transmission paths (Office Action dated January 12, 2006, pp. 12-13) is inapplicable here. Neither Liu et al. nor Whittaker et al. are concerned with the costs of lower bandwidth digital voice calls. The only teaching regarding the advantages of selecting among routing alternatives is in Liu et al. for high bit rate data communications where costs and routing are an issue. Applicant submits that the route selection in Liu et al. teaches away from a combination with Whittaker et al. because, aside from the clear separation of voice communication from data communication in Liu, one of ordinary skill would not want to add complexity and delay to a typical lower bandwidth digital telephone call by inserting additional routing decisions. To the contrary, it is much more likely that one of ordinary skill would not burden a telephone caller with extra call placement decisions based on Whittaker et al.'s teaching to merely add an extra line by connecting an analog telephone to a converter that can transparently access either a POTS line or a predetermined digital voice channel.

CONCLUSION

For the reasons provided above, Appellant submits that claims 12-42 are allowable over the cited art. Appellant respectfully submits that the outstanding rejections of the claims as obviousness is in error and should be reversed.

Respectfully submitted,

Kent E. Genin
Registration No. 37,834
Attorney for Appellant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

VIII. Claims Appendix

12. A wide area communications network, comprising:

a first subscriber location;

a first digital subscriber line in communication with the first subscriber location via a first network interface device;

a first digital subscriber line access multiplexer connected to the first digital subscriber line;

a second subscriber location;

a second digital subscriber line in communication with the second subscriber location via a second network interface device;

a second digital subscriber line access multiplexer connected to the second digital subscriber line; and

the first and second subscriber locations in communication via at least one derived digital telephone voice channel carried over the first and second digital subscriber lines and by a public switched telephone network connecting the first digital subscriber line access multiplexer to the second digital subscriber line access multiplexer, wherein a subscriber unit at the first subscriber location is configured to select one of a plurality of derived digital voice channels for a voice communication to the second subscriber location.

13. The system of claim 12, further including a first ISP connected to an ATM network and a second ISP connected to the ATM network, wherein the ATM network is in communication with both the first digital subscriber line access multiplexer and the second digital subscriber line access multiplexer.

14. The system of claim 13, wherein the first subscriber location includes a first local area network.

15. The system of claim 14, wherein the first subscriber location includes a first telephone system.

16. The system of claim 15, wherein the first network interface device is connected to the first local area network, the first telephone system and the first digital subscriber line.

17. The system of claim 16, wherein the first local area network includes a telephone attached to the subscriber unit, the subscriber unit converting an analog telephone signal into a digital telephone signal.

18. The system of claim 17, wherein the digital telephone signal is carried by a telephone virtual circuit.

19. The system of claim 18, wherein the telephone virtual circuit terminates at the first ISP.

20. The system of claim 18, wherein the telephone virtual circuit terminates at an interworking unit.

21. The system of claim 17, wherein the first local area network includes a facsimile machine.

22. The system of claim 21, wherein the facsimile machine connects to the subscriber unit.

23. The system of claim 21, wherein the facsimile machine is capable of receiving and sending a digitized facsimile transmission.

24. The system of claim 23, wherein the digitized facsimile transmission is carried by a facsimile virtual circuit.

25. The system of claim 21, wherein the telephone system receives a POTS signal from the first network interface device.

26. The system of claim 21, wherein the telephone system receives an ISDN signal from the first network interface device.

27. The system of claim 26, wherein the telephone system includes an ISDN compatible facsimile machine.

28. A wide area communications network, comprising:

a first subscriber location having a first local area network and a first telephone system, the first local area network and the first telephone system connected to a first network interface device;

a first DSL line connected to the first network interface device;

a first DSLAM connected to the first DSL line, the first DSLAM separating a first DSL channel from a first telephony channel;

a public switched telephone network connected to the first telephony channel;

an IWU connected to the first DSLAM and to the public switched telephone network;

an ATM network connected to the first DSL channel;

a second DSLAM connected to the ATM network by a second DSL channel and connected to the public switched telephone network by a second telephony channel;

a second DSL line connected to the second DSLAM;

a second subscriber location having a second network interface device connected to the second DSL line and connected to a second local area network and a second telephone system; and

a first hybrid circuit communicating a voice telephone call from a first telephone in communication with the first local area network to a second telephone in the second telephone system, wherein the first hybrid circuit has a first portion comprising a virtual circuit and a second portion comprising a switched circuit.

29. The system of claim 28, wherein a first virtual circuit is coupled between a first computer connected to the first local area network and a second computer connected to the second local area network.

30. The system of claim 29, wherein the first virtual circuit is carried by the first DSL line, the ATM network and the second DSL line.

31. The system of claim 28, wherein a first switched circuit connects a first telephone in the first telephony system to a second telephone of the second telephony system.

32. The system of claim 31, wherein the first switch circuit connects across the first DSL line, the public switched telephone network and the second DSL line.

33. The system of claim 28, wherein a network telephone is connected to the first local area network by a subscriber unit.

34. The system of claim 33, wherein a first hybrid circuit connects the first network telephone to the second telephone of the second telephony system.

35. The system of claim 34, wherein the first hybrid circuit comprises:

a second virtual circuit connecting the first local area network to the first DSLAM and then to an interworking unit,

a second switched circuit connecting the interworking unit to the second DSL line through the public switched telephone network; and

the second telephony channel of the second DSL line connecting to the second telephone.

36. The system of claim 34, wherein the first hybrid circuit comprises:

a second virtual circuit connecting the first local area network to the first DSLAM and then through the ATM network to an ISP;

an internet telephony circuit connecting the ISP through the internet to an internet POP;

a second switched circuit connecting the internet POP to the second DSL;

the second telephony channel of the second DSL line connecting to the second telephone.

37. The system of claim 28, wherein a digital facsimile machine is connected to the first local area network.

38. The system of claim 37, wherein a second hybrid circuit connects the digital facsimile machine to a facsimile machine connected to the second telephony system.

39. The system of claim 38, wherein the second hybrid circuit comprises:

a third virtual circuit connecting the first local area network to the first DSLAM and then to an interworking unit,

a third switched circuit connecting the interworking unit to the second DSL line through the public switched telephone network;

the second telephony channel of the second DSL line connecting to the facsimile machine.

40. The system of claim 28, wherein the first subscriber location is in a first local access and transport area.

41. The system of claim 40, wherein the second subscriber location is in a second local access and transport area.

42. A wide area communications network, comprising:

a first subscriber location;

a first digital subscriber line in communication with the first subscriber location via a first network interface device;

a first digital subscriber line access multiplexer connected to the first digital subscriber line;

a second subscriber location;

a second digital subscriber line in communication with the second subscriber location via a second network interface device;

a second digital subscriber line access multiplexer connected to the second digital subscriber line;

a second digital subscriber line in communication with the second subscriber location via a second network interface device; and

the first and second subscriber locations in communication via at least one derived digital telephone voice channel carried over an Internet connection and by the first and second digital subscriber lines.

IX. Evidence Appendix

None

X. Related Proceedings Appendix

None